

Notice of Allowability

Application No.

09/780,675

Examiner

Ramin (Ray) Akhavan

Applicant(s)

NICOLAIDES ET AL.

Art Unit

1636

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 06/23/2005.
2. ☒ The allowed claim(s) is/are 1,6,7,16-18,27 and 71-78.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date 09/05/2005.
7. ☒ Examiner's Amendment/Comment
8. ☐ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

EXAMINER'S AMENDMENT

Receipt is acknowledged of a request for continued examination, filed 06/23/2005. An Examiner's Amendment to the record appears below for the purposes of placing the claims in a position for allowance. Should changes and/or additions be unacceptable to applicants, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted not later than the payment of issue fee.

Authorization for this amendment was given in a telephone interview with Ms. Michelle L. Holmes-Son on August 31, 2005.

The application has been amended as follows:

In the claims:

1. (Currently amended) A method for making a hypermutable bacterium comprising the steps of:

introducing into a bacterium a polynucleotide encoding a dominant negative ~~PMS2-134~~ PMS2 mismatch repair protein, wherein the dominant negative PMS2 protein consists of the first 133 amino acids of PMS2, under the control of an inducible transcription regulatory sequence; and inducing said inducible transcription regulatory sequence in said bacterium; whereby said bacterium becomes hypermutable.

- 2-5. (Canceled)

6. (Currently amended) The method of claim 1 wherein the dominant negative ~~PMS2-134~~ PMS2 mismatch repair protein is a dominant negative human ~~PMS2-134~~ PMS2 protein consisting of the first 133 amino acids of human PMS2.

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7. (Currently amended) The method of claim 1 wherein the dominant negative ~~PMS2-134~~ PMS2 mismatch repair protein is a dominant negative plant ~~PMS2-134~~ PMS2 protein consisting of the first 133 amino acids of a plant PMS2.

8-15. (Canceled)

16. (Currently amended) The method of claim 7 wherein said polynucleotide encoding a dominant negative ~~PMS2-134~~ PMS2 mismatch repair protein comprises a truncation mutation at codon 134.

17. (Currently amended) The method of claim 6 wherein said polynucleotide encoding a dominant negative ~~PMS2-134~~ PMS2 mismatch repair protein comprises a truncation mutation at codon 134.

18. (Currently amended) A homogeneous composition of induced, cultured, hypermutable bacteria which comprise a polynucleotide encoding a dominant negative mismatch repair protein under the control of an inducible transcription regulatory sequence, wherein said dominant negative mismatch repair protein is ~~PMS2-134~~ consists of the first 133 amino acids of PMS2, wherein said dominant negative ~~PMS2-134~~ mismatch repair protein exerts a dominant negative effect when expressed in said bacteria.

19-26. (Canceled)

27. (Currently amended) The homogeneous composition of claim 26 ~~18~~ wherein the dominant negative ~~PMS2-134~~ mismatch repair protein is ~~a dominant negative human PMS2-134 mismatch repair protein~~ consists of the first 133 amino acids of human PMS2.

28-70. (Canceled)

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71. (Currently amended) The method of claim 1 wherein the polynucleotide encoding a dominant negative ~~PMS2-134~~ PMS2 mismatch repair protein comprises a truncation mutation at codon 134.

72. (Previously presented) A method for making a hypermutable bacterium comprising the steps of:

introducing into a bacterium a polynucleotide encoding a dominant negative mismatch repair protein under the control of an inducible transcription regulatory sequence, wherein said dominant negative mismatch repair protein is a dominant negative PMSR3 mismatch repair protein; and inducing said bacterium; wherein said dominant negative PMSR3 mismatch repair protein exerts a dominant negative effect on mismatch repair when expressed in said bacterium, whereby said bacterium becomes hypermutable.

73. (Previously presented) A homogeneous composition of induced, cultured, hypermutable bacteria which comprise a polynucleotide encoding a dominant negative PMSR3 mismatch repair protein under the control of an inducible transcription regulatory sequence, wherein said dominant negative PMSR3 mismatch repair protein exerts a dominant negative effect when expressed in said bacteria.

74. (Currently amended) The composition of claim 26 ~~18~~ wherein the ~~PMS2-134~~ dominant negative mismatch repair protein consists of the first 133 amino acids of plant PMS2 ~~is a plant PMS2-134 mismatch repair protein.~~

75. (Currently amended) The composition of 74 wherein the dominant negative plant ~~PMS2-134~~ mismatch repair protein is an *Arabidopsis thaliana* ~~PMS2-134~~ mismatch repair protein consisting of the first 133 amino acids of *Arabidopsis thaliana* PMS2.

76. (Currently amended) The method of claim 7 wherein the dominant negative ~~PMS2-134~~ plant ~~PMS2~~ mismatch repair protein ~~is an~~ consists of the first 133 amino acids of *Arabidopsis thaliana* PMS2-134 protein PMS2.

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77. (Currently amended) The method of claim 16 wherein the dominant negative ~~PMS2-134~~ plant PMS2 mismatch repair protein is an consists of the first 133 amino acids of *Arabidopsis thaliana* PMS2-134 protein PMS2.

78. (Currently amended) The homogeneous composition of claim ~~26~~ 18 wherein the dominant negative ~~PMS2-134~~ mismatch repair protein is a dominant negative *Arabidopsis thaliana* ~~PMS2-134~~ mismatch repair protein which consists of the first 133 amino acids of *Arabidopsis thaliana* PMS2.

Conclusion

Claims 1, 6, 7, 16, 17, 18, 27 and 71-78 are allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ramin (Ray) Akhavan whose telephone number is 571-272-0766. The examiner can normally be reached on Monday- Friday from 8:30-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Remy Yucel, Ph.D. can be reached on 571-272-0781. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Respectfully submitted,

Ray Akhavan


DAVID GUZO
PRIMARY EXAMINER